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DATE: March 28, 2007
FILE NO: ROC920010082US1 (IBMK10082)
TO: MAIL STOP APPEAL BRIEF
Examiner Djenane M. Bayard
FAX NO: 1-571-273-8300
FROM: Gero G. McClellan / Jon K. Stewart
PAGE(S) with cover: 24

RE:

TITLE: LOCALIZATION IN DISTRIBUTED COMPUTER ENVIRONMENTS
U.S. SERIAL NO.: 09/870,319
FILING DATE: May 30, 2001
INVENTOR(S): Banerjee et al.
EXAMINER: Djenane M. Bayard
GROUP ART UNIT: 2141
CONFIRMATION NO.: 7641

Attached are the following document(s) for the above-referenced application:

1. Appeal Brief

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MAR 28 2007

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCESIn re Application of:
Banerjee et al.

Serial No.: 09/870,319

Confirmation No.: 7641

Filed: May 30, 2001

For: LOCALIZATION IN
DISTRIBUTED COMPUTER
ENVIRONMENTS

Group Art Unit: 2141

Examiner: Djenane M. Bayard

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
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March 28, 2007
Date

Don K. Stewart

APPEAL BRIEF

Applicants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2141 dated September 27, 2006, finally rejecting claims 10-20, 33-42, 45-47, and 50-51. The final rejection of claims 10-20, 33-42, 45-47, and 50-51 is appealed. This Appeal Brief is believed to be timely since it is facsimile transmitted by the due date of March 28, 2007, as set by the filing of a Notice of Appeal on January 29, 2006. Please charge the fee of \$500.00 for filing this brief to Deposit Account No. 09-0465/ROC920010082US1.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

TABLE OF CONTENTS

1.	Identification Page.....	1
2.	Table of Contents	2
3.	Real Party in Interest	3
4.	Related Appeals and Interferences	4
5.	Status of Claims	5
6.	Status of Amendments	6
7.	Summary of Claimed Subject Matter	7
8.	Grounds of Rejection to be Reviewed on Appeal	10
9.	Arguments	11
10.	Conclusion	16
11.	Claims Appendix	17
12.	Evidence Appendix	22
13.	Related Proceedings Appendix	23

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Real Party in Interest

The present application has been assigned to International Business Machines Corporation, Armonk, New York.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Related Appeals and Interferences

Applicant asserts that no other appeals or interferences are known to the Applicant, the Applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Status of Claims

Claims 10-20, 33-42, 45-47, and 50-51 are pending in the application. Claims 1-53 were originally presented in the application. Claims 52 and 53 have been added during prosecution. Claims 1-9, 21-32, 43-44, 48-49 and 52-53 have been canceled without prejudice. Claims 10-20, 33-42, 45-47, and 50-51 stand finally rejected as discussed below. The final rejections of claims 10-20, 33-42, 45-47, and 50-51 are appealed. The pending claims are shown in the attached Claims Appendix.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Status of Amendments

All claim amendments have been entered by the Examiner. No amendments to the claims were proposed after the final rejection.

Summary of Claimed Subject Matter

Claimed embodiments include methods (*see claims* 10-20 and 45-47, 50, 51) and computer programs stored on a signal bearing medium (*see claims* 33-42) directed to techniques for transparently propagating internationalization context information. *See Application*, 1:6-8, 4:8-18, 7:19-30, *Abstract*.

CLAIM 10 – INDEPENDENT

Claim 10 recites a method operative in a distributed computing environment having clients and a plurality of servers located across geographically dispersed boundaries. *See Application*, 1:6-8, 4:8-18, 7:19-30, *Abstract*. For a description of a distributed computing environment *see Application*, 7:31 - 8:1-12, Figure 2, 220. As claimed, this method includes providing receiving, at a server, a first request from a client. *See Application*, 4:24-25, 8:14-29 and Figure 3A, 220, 9:1-8, 12:1-5. This limitation also specifies that the first request is a request to invoke a remote procedure call at the server. *See Application*, 8:14-29, 12:1-5.

Claim 10 further recites a step of receiving, at the server, a second request from the client, wherein the second request comprises an internationalization context for processing the first request, wherein the internationalization context specifies geographically specific parameters set for the client. *See Application*, 12:3-9, 12:17-32 – 13:1-3, Figure 5. An example of an internationalization context data structure is shown in Figure 6A-6B and at *Application*, 12:17-32 – 13:1-2. Additional examples from the specification related to the internationalization context include a description of an implementation using the CORBA architecture at *Application*, 13:4-28 and RPC the Java framework at *Application* 13:31-34 14:1-30.

Claim 10 also recites a step of extracting the internationalization context from the second request, *see Application*, 4:28-29, 7:23-25, 12:5-9 and Figure 5, 16:17-19 and Figure 8, 810, and a step of processing the first request at the server using the internationalization context, *see Application*, 12:5-9. Claim 10 also recites a step of attaching the internationalization context to the first request. *See Application*, 12:5-9, Figure 5, 16:19-25, Figure 8, 812, 814. Claim 10 also recites a step of propagating the

548917_1

first request with the attached internationalization context from the server to an application associated with an application interface on a second server. 7:28-32, 12:11-15 Figure 5.

CLAIM 33 – INDEPENDENT

Claim 33 is directed to a signal bearing medium, comprising a program which, when executed by a processor of a server configured with a default locale setting and a default time zone setting performs a method. See 4:8-18, 5:9-16, 7:19-30, 6:1-7, 11:3-19. As claimed, the method performed by the program includes parsing a first request from a client computer. See *Application*, 4:24-25, 8:14-29 and Figure 3A, 220, 9:1-8, 12:1-5. And includes parsing a second request from the client computer, wherein the second request comprises an internationalization context containing a user specified locale specification and a time zone identifier. See *Application*, 12:3-9, 12:17-32 – 13:1-3, Figure 5. An example of an internationalization context data structure is shown in Figure 6A-6B and at *Application*, 12:17-32 – 13:1-2. Additional examples from the specification related to the internationalization context include a description of an implementation using the CORBA architecture at *Application*, 13:4-28 and RPC the Java framework at *Application* 13:31-34 14:1-30.

The method performed by the program also includes extracting the client's internationalization context from the second request. See *Application*, 4:28-29, 7:23-25, 12:5-9 and Figure 5, 16:17-19 and Figure 8, 810. And also includes processing the first request at the server using the internationalization context. See *Application*, 12:5-9. The method performed by the program also includes generating a main body of a second request to invoke a second remote procedure call, see *Application*, 6:1-4, and includes attaching the internationalization context to the main body, see *Application*, 6:1-4, 12:5-9, and propagating the second request with the attached internationalization context from the server to an application associated with an application interface on a second server, see *Application* 12:11-15.

CLAIM 45 – INDEPENDENT

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Claim 45 recites a method for transparently propagating internationalization context information. See *Application*, 4:8-18, 7:19-30, 5:24-31. Claim 45 recites a step of receiving, at a first computer, a first request from a second computer. See *Application*, 1:6-8, 4:8-18, 7:19-30, *Abstract*. For a description of a distributed computing environment see *Application*, 7:31 - 8:1-12, Figure 2, 220. As claimed, the first request including an internationalization context, wherein the internationalization context specifies geographically specific parameters set for the client computer. See *Application*, 12:3-9, 12:17-32 – 13:1-3, Figure 5. An example of an internationalization context data structure is shown in Figure 6A-6B and at *Application*, 12:17-32 – 13:1-2. Additional examples from the specification related to the internationalization context include a description of an implementation using the CORBA architecture at *Application*, 13:4-28 and RPC the Java framework at *Application* 13:31-34 14:1-30.

As claimed, this method also recites a step of extracting the internationalization context from the first request. See *Application*, 4:28-29, 7:23-25, 12:5-9 and Figure 5, 16:17-19 and Figure 8, 810. And this method also recites a step of associating the internationalization context with a thread executing a second request, from the second computer, to invoke a remote procedure call at the first computer. See *Application*, 12:5-9. Claim 45 also recites a step of generating a main body of a second request to invoke a second remote procedure call, see *Application*, 6:1-4, and a step of attaching the internationalization context to the second request, see *Application*, 6:1-4, 12:5-9. This method also recites a step of propagating the second request with the attached internationalization context from the server to an application associated with an application interface on a second server. See *Application* 12:11-15.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Grounds of Rejection to be Reviewed on Appeal

1. Claims 10-20, 33-42, 45-47 and 50-51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *JavaServer Pages* by Hans Bergsten in view of U.S. Patent No. 5,404,523 to *DellaFera, et al.*

MAR 28 2007

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082**ARGUMENTS**

Claims 10-20, 33-42, 45-47, and 50-51 are not obvious under 35 U.S.C. § 103(a) over *JavaServer Pages (Bergsten)* in view of *DellaFera*

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143. The Examiner's rejection in this matter does not establish at least the third criteria.

For example, the *Bergsten*, in view of *DellaFera* do not teach a method operative in a distributed computing environment having clients and a plurality of servers located across geographically dispersed boundaries, as recited by claim 10. More specifically, the references do not teach a method that includes both a step of receiving a first request from a client, where the first request is a request to invoke a remote procedure call at the server and a step of receiving a second request from the client and where the second request comprises an internationalization context for processing the first request. Further, the references, even when combined, do not teach a method where the internationalization context is extracted from the second request and attached to the first request and propagated to a second server, as recited by claim 10. Claims 33 and 45 recite similar limitations.

The Examiner suggests that *Bergsten* discloses the claimed limitation of:

receiving a first request from a client at a server (See Section 11.1.1, A browser can send a request for a web resource); receiving a second request from the client at the server, wherein the second request comprises an internationalization context for processing the first request (See Section 11.1.1 A browser can send an Accept-language header with a request for a web resource).

Final Office, p. 3. However, nothing in the cited passages from *Bergsten* teach the claimed step of receiving both a first request and a second request; particularly where the first and second requests have the specific relationship recited in claim 10 that second request specifies an internationalization context for processing the first request. Set out more fully, the passage relied on by the Examiner provides:

As you may remember from chapter 2, a browser can send an Accept-Language header with a request for a web resource such as a JSP page.

Bergsten, sec. 11.1.1. Plainly, nothing in this passage discusses a first and second request that have the interrelationship between them recited by claim 10. Instead, the passage makes the general observation that a single HTTP request may include an "Accept-Header" parameter that specifies how a server should process that particular request. This conclusion is made completely clear when considering the material from *Bergsten*, chapter 2 describing an HTTP Request:

Here's an example of a valid HTTP request:

```
GET/index.html HTTP/1.0
Host: www.gefionsoftware.com
User-Agent : Mozilla/ 4.5 [en] (WinNT; 1)
Accept: image/gif, image/jpg/ image/pjpeg, image/png, */*
Accept-Language : EN
```

Bergsten, sec. 2.1.1 - Requests in Detail. In this example, the "accept-language" header is exclusively related to the request for the "index.html" resource from the "www.gefionsoftware.com" host; it is not used, and nor could it be used for processing a second HTTP request. As HTTP is a stateless protocol," nothing from a one HTTP request is used (or even available) for processing another HTTP request. *Bergsten* itself makes this point:

HTTP is a stateless protocol. This means that the server does not keep any information about the client after it sends its response, and therefore cannot recognize that multiple requests from the same client may be related.

Bergsten, sec. 2.1 – The HTTP Request/Response Model. Thus, not only does *Bergsten* not disclose the limitations recited by claim 10, *Bergsten* affirmatively discloses that the Accept-Language header defined for the HTTP protocol cannot be used in the manner suggested by the Examiner.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

Moreover, even when combined, *Bergsten*, in view of *DellaFera*, does not teach a method that includes both a step of receiving a first request from a client, wherein the first request is a request to invoke a remote procedure call at the server and a step of receiving a second request from the client, where the second request comprises an internationalization context for processing the first and where the internationalization context is extracted from the second request and attached to the first request and propagated to a second server, as recited by claim 10. Claims 33 and 45 recite similar limitations.

DellaFera teaches that a server may receive a remote procedure call (RPC), with a "request-context" marshaled into the call. The server then unmarshalls and stores the request-context. If the server requires assistance from another server, the server issues an RPC to the other server and marshalls the request-context into the outgoing call. See col. 5, line 57 – col. 6, line 10. However, *DellaFera* fails to teach processing a first request using internationalization context extracted from a second request, attaching the internationalization context to the first request, and propagating the first request with the attached internationalization context to an application associated with an application interface on a second server, as recited in the claims.

Nevertheless, the Examiner suggests that:

DellaFera teaches wherein "the request manager keeps track of local active request. Ideally, the request manager keeps track of all currently active request made by any local client. For Example, ideally the request manager tracks the request made by end-user and any request made by other process in fulfilling the end-user's requests" (see col. 4, lines 61-67). Furthermore, *DellaFera* teaches "When an RPC is received, the request manager local to the receiving server records: 1) the request-id; 2) the request context; and 3) the server processing the request (See col. 5, lines 7-12). If the request manager receives a request without a request-id (i.e., with a NULL request- id) it assumes that it is being asked to become the originating request manager for that request.

The now-originating request manager is responsible for generating a request-id and any initial request context for the newly created request. Each request manager maintains a list or index of all the data it has gathered. Specifically, lists are maintained for: 1) all requests made; 2) the client or server on which the request executed; 3) the associated request-context. This data maintained by the request managers may be accessed and manipulated by defining and using an appropriate interface. The data

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

can be accessed at any time in order track and manage requests." (See col. 5, lines 13-36).

Advisory Action, Continuation sheet. However, nothing in this material discloses the claimed limitation of processing a first request using internationalization context extracted from a second request, attaching the internationalization context to the first request, and propagating the first request with the attached internationalization context to an application associated with an application interface on a second server. That is, nothing in this material discloses processing a first request on the basis of an internationalization context attached to a second request. Instead, at best, *DelleFera* teaches that an RPC request includes a bundled "request-context" that may be used in processing that particular RPC request. For example, the material cited by the Examiner describes a flow diagram (*DelleFera* Figure 1). The flow diagram includes a step of "marshall request context into RPC" (step 102); a step of "receive RPC and un-marshall request context" (step 103); and a step of "store un-marshalled request context" (step 104).

Plainly, the "request context" used in the method of *DelleFera* is not received in a second request specifying an internationalization context to use in processing a first request, as recited by the present claims. Instead, the "request-context" is part and parcel of the original request. This is confirmed by the flow diagram step of "marshall request context into RPC" which refers to a processes of bundling all of the data values, types, and context information into a *single* bundle and then invoking the remote procedure call mechanism. The remote procedure call mechanism then transmits the marshaled arguments as a single request to a remote server. Once sent, the client invoking the RPC mechanism simply awaits a response. No second request that includes "an internationalization context for processing the first request, wherein the internationalization context specifies geographically specific parameters set for the client," as recited by the present claims is generated, sent, or even contemplated as part of this processes.

For all the foregoing reasons, Applicants submit that independent claim 10 is patentable over Bergsten, in view of *DellaFera*. Further, Applicants submit that

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

independent claims 33 and 45, as well the dependent claims are allowable over these references and respectfully request that these rejections be withdrawn.

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MAR 28 2007

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

CONCLUSION

The Examiner errs in finding that claims 10-20, 33-42, 45-47 and 50-51 are unpatentable over *JavaServer Pages* by *Hans Bergsten* in view of *DellaFera, et al* under 35 U.S.C. § 103(a).

Withdrawal of the rejections and allowance of all claims is respectfully requested.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

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CLAIMS APPENDIX

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)

10. (Previously Presented) A method operative in a distributed computing environment having clients and a plurality of servers located across geographically dispersed boundaries, comprising:

receiving, at a server, a first request from a client, wherein the first request is a request to invoke a remote procedure call at the server;

receiving, at the server, a second request from the client, wherein the second request comprises an internationalization context for processing the first request, wherein the internationalization context specifies geographically specific parameters set for the client;

extracting the internationalization context from the second request;

processing the first request at the server using the internationalization context;

attaching the internationalization context to the first request; and

propagating the first request with the attached internationalization context from the server to an application associated with an application interface on a second server.

11. (Original) The method of claim 10, wherein processing the first request comprises providing the first request and internationalization context to an application to perform calculations using the internationalization context and return a result formatted according to the internationalization context.

12. (Original) The method of claim 10, further comprising sending the internationalization context from the server to at least one of the plurality of servers in the distributed computing environment.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

13. (Original) The method of claim 10, wherein the internationalization context contains a country identifier.
14. (Original) The method of claim 10, wherein the internationalization context contains a language identifier.
15. (Original) The method of claim 10, wherein the internationalization context contains a time zone identifier.
16. (Original) The method of claim 10, wherein the internationalization context contains at least a locale specification and a time zone identifier.
17. (Original) The method of claim 16, wherein the locale specification comprises at least one of a country identifier, a language identifier and a currency identifier.
18. (Original) The method of claim 10, further comprising processing the first request according to a country identifier of the server if the internationalization context does not contain a country identifier.
19. (Original) The method of claim 10, further comprising processing the first request according to a universal time zone identifier if the internationalization context does not contain a time zone identifier of the client.
20. (Original) The method of claim 10, further comprising processing the first request according to a time zone identifier of the server if the internationalization context does not contain a time zone identifier.
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

32. (Canceled)

33. (Previously Presented) A signal bearing medium, comprising a program which, when executed by a processor of a server configured with a default locale setting and a default time zone setting, performs a method, comprising:

parsing a first request from a client computer;

parsing a second request from the client computer, wherein the second request comprises an internationalization context containing a user specified locale specification and a time zone identifier;

extracting the client's internationalization context from the second request;

processing the first request at the server using the internationalization context;

generating a main body of a second request to invoke a second remote procedure call;

attaching the internationalization context to the main body; and

propagating the second request with the attached internationalization context from the server to an application associated with an application interface on a second server.

34. (Original) The signal bearing medium of claim 33, wherein processing the first request comprises providing the first request and the internationalization context to an application configured to perform calculations using the internationalization context.

35. (Original) The signal bearing medium of claim 33, further comprising sending the internationalization context from the server to at least one of the plurality of servers in the distributed computing environment.

36. (Original) The signal bearing medium of claim 33, wherein the internationalization context contains a country identifier.

37. (Original) The signal bearing medium of claim 33, wherein the internationalization context contains a language identifier.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

38. (Original) The signal bearing medium of claim 33, wherein the internationalization context contains a time zone identifier.
39. (Original) The signal bearing medium of claim 33, wherein the internationalization context contains at least a locale specification and a time zone identifier.
40. (Original) The signal bearing medium of claim 39, wherein the locale specification comprises at least one of a country identifier, a language identifier and a currency identifier.
41. (Original) The signal bearing medium of claim 33, further comprising processing the first request according to a country identifier of the server if the internationalization context does not contain a country identifier.
42. (Original) The signal bearing medium of claim 33, further comprising processing the first request according to a time zone identifier provided by the server if the time zone identifier of the internationalization context is set to null.
- 43-44. (Canceled)
45. (Previously Presented) A method for transparently propagating internationalization context information, comprising:
- receiving, at a first computer, a first request from a second computer, the first request including an internationalization context, wherein the internationalization context specifies geographically specific parameters set for the client computer;
 - extracting the internationalization context from the first request;
 - associating the internationalization context with a thread executing a second request, from the second computer, to invoke a remote procedure call at the first computer;
 - generating a main body of a second request to invoke a second remote procedure call
 - attaching the internationalization context to the second request; and

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

propagating the second request with the attached internationalization context from the server to an application associated with an application interface on a second server.

46. (Original) The method of claim 45, wherein the internationalization context contains at least a locale specification and a time zone identifier.

47. (Original) The method of claim 45, further comprising sending a first main body of the first request to the thread.

48-49. (Canceled)

50. (Original) The method of claim 45, wherein the thread comprises a legacy application thread.

51. (Original) The method of claim 45, wherein the internationalization component comprises culture sensitive information.

52. (Canceled)

53. (Canceled)

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

EVIDENCE APPENDIX

None.

PATENT
Atty. Dkt. No. ROC920010082US1
PS Ref. No.: IBMK10082

RELATED PROCEEDINGS APPENDIX

None.